

CLAIMS:

1. Device for reading information represented by marks on an information carrier, the device comprising:

a scanning unit for generating a read signal from the marks,

a radiation source and optical elements for generating a beam of radiation,

5 focusing means for controlling at least one of the optical elements for creating a spot by focusing the beam, and

cleaning means for cleaning a surface of the information carrier,

characterized in that

the cleaning means comprise control means for performing said cleaning by

10 controlling the focusing means to focus the spot substantially on the surface of the information carrier and for controlling the power of the radiation source.

2. Device as claimed in claim 1, wherein the control means are arranged for controlling the power of the radiation source in pulses.

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3. Device as claimed in claim 1, wherein the scanning unit includes the radiation source and at least one of the optical elements for scanning a track on the information carrier for generating the read signal and/or for recording the marks.

20 4. Device as claimed in claim 1, wherein the device comprises detection means for detecting possible contamination of the surface, and wherein the control means are arranged for cleaning parts of the surface where said possible contamination is detected.

25 5. Device as claimed in claim 4, wherein the detection means are arranged for detecting contamination based on at least one of: reflection of the surface; an error occurring in the read signal; an error in tracking signals generated by the scanning unit.

6. Device as claimed in claim 4, wherein the control means are arranged for cleaning in at least one of the following ways: in radially outward direction from a detected

error; repeatedly a part of the surface where said possible contamination is detected; alternately switching the focusing means to focus on the surface and on a track on an information layer of the information carrier for locating said parts based on position information included in the track.

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7. Device as claimed in claim 1, wherein the control means are arranged for cleaning on at least one of the following moments: by interrupting reading or recording of marks when an error is detected; in a background process at moments when no reading or recording is required; after inserting an information carrier in the device.

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8. Device as claimed in claim 1, wherein the optical elements include an element for creating the spot having an oblong shape perpendicular to a direction of movement of the spot, in particular the element being a cylindrical lens.

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9. Device as claimed in claim 1, wherein the device is provided with contamination collecting means for adhering particles removed from the surface of the information carrier by said cleaning, in particular at least part of the inner walls of the device enclosing the information carrier being covered by material with a high surface energy.

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10. Information carrier for use in the device of claim 1, which information carrier is provided with a protective cartridge, characterized in that the cartridge is provided with contamination collecting means at a distance from the surface of the information carrier for adhering particles removed from the surface of the information carrier by said cleaning, in particular at least part of the inner walls of the cartridge being covered by material with a

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high surface energy.